

Figure 1: Schematic diagram of a fuel cell.

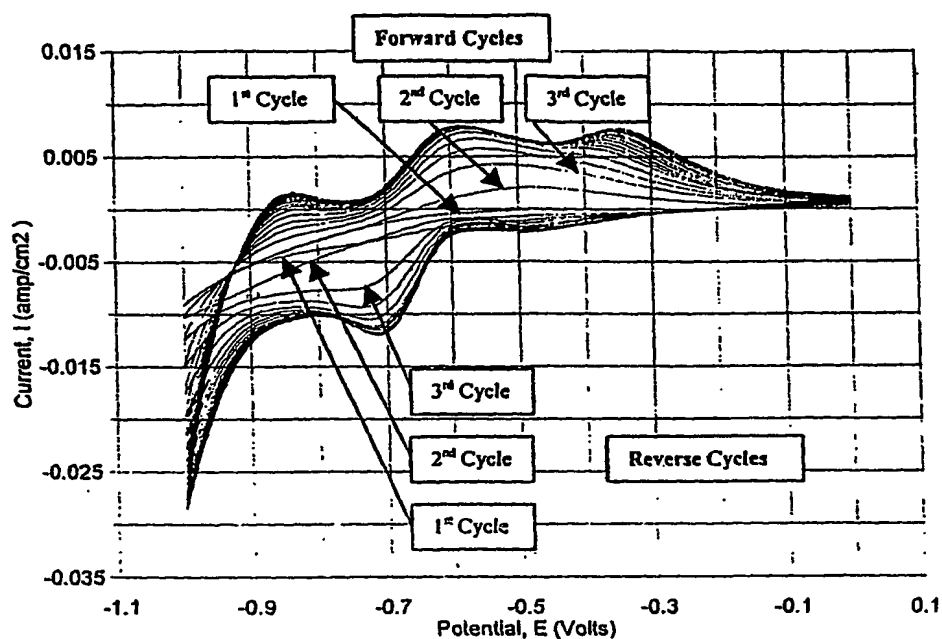


Figure 2: Cyclic voltammograms of platinum phosphate blue recorded by using a porous carbon, SCE, and Pt wire as working, reference, and auxiliary electrodes. The successive scanning of potential afforded a uniform coating of platinum on to the carbon surface.

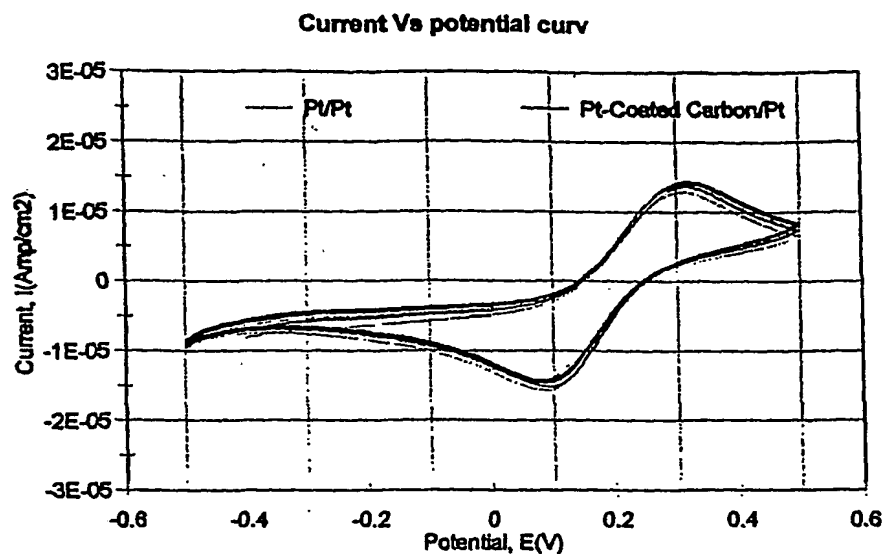


Figure 3: Cyclic voltammograms of $K_3Fe(CN)_6$ recorded by utilizing Platinum wire(red) and platinum coated carbon(black) electrodes. The reference and auxiliary electrodes are the same in both cases. Note that the surface areas of the two working electrodes are adjusted to be the same. The outputs currents are indeed comparable indicating that the platinum coated carbon electrode behaves exactly like a genuine platinum electrode.

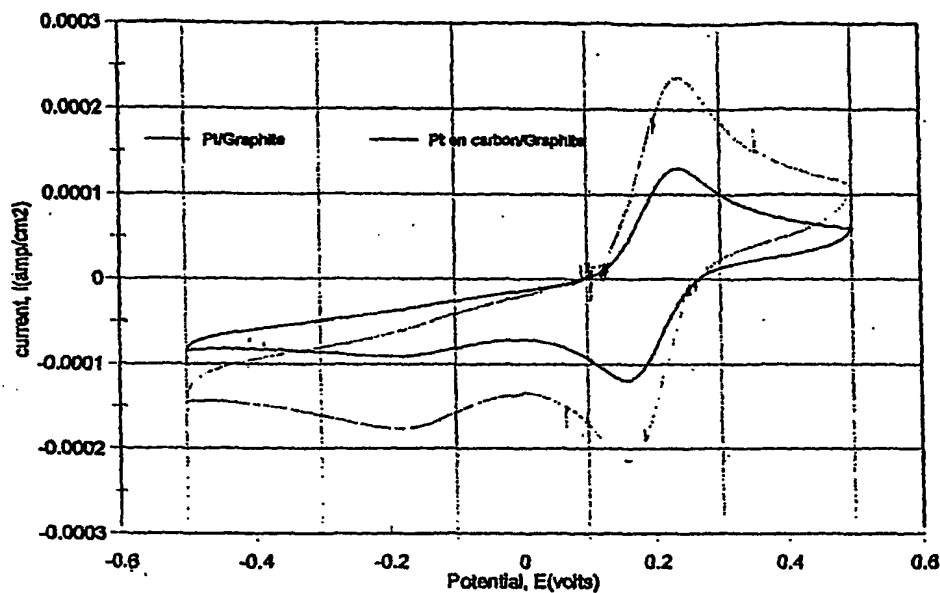


Figure 4. Cyclic voltammograms of $K_3Fe(CN)_6$ recorded by utilizing platinum coated carbon electrode (red) and pure platinum wire (black) as working electrode demonstrating that platinum coated carbon electrode behaves like an authentic platinum electrode.